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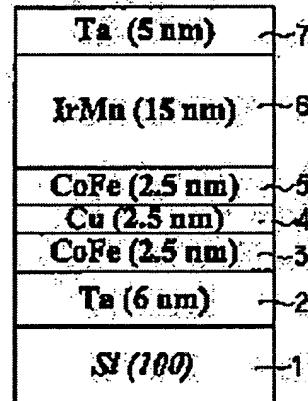
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(54) METHOD FOR MANUFACTURING MAGNETORESISTANCE EFFECT FILM

(57)Abstract:

PROBLEM TO BE SOLVED: To improve a magnetic field sensitivity by forming at least one magnetic layer of a multilayer film in an atmosphere containing a hydrogen gas by the sputtering method.

SOLUTION: A first ferromagnetic layer 3, a non-magnetic layer 4, and a second ferromagnetic layer 5 are sequentially formed. The coercive force of the first ferromagnetic layer 3 is smaller than the ferromagnetic layer 5. In this kind of coercive force difference type multilayer film, a first ferromagnetic layer 3 with a small coercive force becomes a free layer and its magnetization direction changes due to the influence of an external magnetic field. Therefore, in this kind of coercive force difference type multilayer film, at least the first ferromagnetic layer 3 of the multilayer film is formed by the sputtering method in an atmosphere containing a hydrogen gas, thus reducing the coercive force of the first ferromagnetic layer 3 and improving a magnetic field sensitivity.



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